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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/716,158      | 11/18/2003  | Thomas M. Smith      | 84236AJA            | 5305             |

7590 06/30/2004

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EXAMINER

OSELE, MARK A

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1734

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/716,158             | SMITH ET AL.        |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Mark A Osele           | 1734                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>03242004</u> .  | 6) <input type="checkbox"/> Other: ____.                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 6-7, 12, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deans et al. in view of Reiss et al. Deans et al. shows the method of lap splicing first and second lengths of photographic film strips comprising overlapping the ends of the film strips and applying ultrasonic energy to bond the overlapped sections.

Reiss et al. shows a method of bonding two articles to each other by positioning a bonding element between the two articles wherein the bonding element comprises an induction heating receptive support, 860, with adhesive layers, 862, 864, on each side of the support and wherein the heating of the bonding element is performed by induction heating (column 6, lines 52-62; column 43, lines 22-35). Reiss et al. teaches that this bonding element is beneficial because it cures on demand, is reversible on demand, has unlimited shelf life, has not volatile organic compounds, and is safe and easy to use (column 1, lines 61-64). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the bonding element of Reiss et al. in place of the ultrasonic welding of Deans et al. for the advantages shown by Reiss et al., in particular the reversibility which would not be possible with an ultrasonic bond.

Art Unit: 1734

Regarding claim 2, Deans et al. indicates that the film is a motion picture film strip. Motion picture film strips are conventionally 8-70 mm wide. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a bonding element in the claimed dimensions because these dimensions are equivalent to the splicing area.

Regarding claims 6-7, Riess et al. teaches the metal foil support to have a thickness of 13 microns (column 43, lines 29-35).

Regarding claim 12, Riess et al. shows the receptive support to be aluminum (column 13, lines 17-21).

Regarding claim 17, Deans et al. shows the photographic film to be polyester.

Regarding claim 18, inductive heating bonding elements are known to be used for bonding two objects of different materials.

Regarding claim 19, absent the showing of unexpected results, the bond strength of the references as combined would be expected to be equivalent to the bond strength of the instant invention because both use the same bonding technology.

3. Claims 3-5 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deans et al. in view of Riess et al. as applied to claim 1 above, and further in view of Holzer et al. Riess et al. suggests different thicknesses for the receptive support but appears to be silent as to the thickness of the adhesives on either side.

Holzer et al. teaches that the thickness of the adhesive on either side of a receptive support is dependent upon the material being bonded but that for smooth

Art Unit: 1734

surfaces a thickness of 1 to 3 mils (25-75 microns) (see paragraph 0033). Reiss et al. teaches that the susceptor can be as thin as 0.25 microns (column 46, lines 13-16). With the thinnest adhesive suggest by Holzer et al. the thickness of the bonding element would be about 50 microns. It is well known that thinner adhesives are stronger than thicker ones. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use even thinner adhesive layers than that shown by Holzer et al. on smooth articles to increase bonding strength.

Regarding claim 9, Holzer et al. teaches that the adhesive can be applied either by coating or as a thin film (paragraph 0030).

Regarding claims 10 and 11, the particular nature of the adhesive employed, its composition, and/or physical properties would have been obvious to one having ordinary skill in the art based upon considerations of cost, availability, bond strength, mode of application or environmental preference. Typically, selection of the proper adhesive may be achieved in the course of routine experimentation, by reference to standard technical literature, or through consultation with industrial or specialty adhesive suppliers.

4. Claim 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deans et al. in view of Riess et al. as applied to claim 1 above, and further in view of the admitted prior art. The instant specification indicates that induction heating technology uses either a metal foil or a vacuum deposited metal layer on a polymeric film (page 5, lines 14-19). It would have been obvious to one of ordinary skill in the art at the time the

Art Unit: 1734

invention was made to replace the metal foil of the method of the references as combined above with a metal coated polymeric film because the admitted prior art shows these to be interchangeable.

Regarding claims 14-16, absent a showing of unexpected results, the particular bonding element claimed appears to be from those known to be conventional in induction heated bonding.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sindt, Malofsky et al., Remerowski et al., and Leatherman each show inductive heating bonding elements for adhering two articles to each other.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A Osele whose telephone number is 571-272-1235. The examiner can normally be reached on Mon-Fri 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1734

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Mark A. Osele', is positioned above the printed name and title.

**MARK A. OSELE**  
**PRIMARY EXAMINER**

June 25, 2004